

WHAT IS CLAIMED IS:

1. An active matrix type electro-optical device, comprising:
a plurality of pixels arranged in a matrix on a substrate holding an electro-optical material; and
each pixel including a thin film transistor that switches pixels, an irregularity forming film on which a plurality of irregularities including protrusions or holes are dispersed, and a light-reflecting film formed on the irregularity forming film,
the light-reflecting film having on its surface an irregular pattern that scatters light due to the irregularity forming film, and the light-reflecting film being formed in contact holes which are formed in an interlayer insulating film,
wherein, when the pixels are grouped into a plurality of units of $n \times m$ pixels, a pattern of contact hole formation-position are different in each of the units.
2. The active matrix type electro-optical device according to Claim 1, the contact-hole formation positions being different for each pixel in the units.
3. The active matrix type electro-optical device according to Claim 1, the contact-hole formation positions of the pixels located in same positions in the units all being different for each unit.
4. An active matrix type electro-optical device, comprising:
a plurality of pixels arranged in a matrix on a substrate holding an electro-optical material; and
each pixel including a thin film transistor that switches pixels, an irregularity forming film on which a plurality of irregularities including protrusions or holes are dispersed, and a light-reflecting film formed on the irregularity forming film,
the light-reflecting film having on its surface an irregular pattern that scatters light due to the irregularity forming film, and the light-reflecting film being formed in contact holes which are formed in an interlayer insulating film,
wherein, when the plurality of pixels are grouped into a plurality of units of $n \times m$ pixels, contact-hole formation positions are different for each unit.
5. The active matrix type electro-optical device according to Claim 1, the pixels having different patterns at least in the units, and the irregular pattern positions being different for each unit.

6. An active matrix type electro-optical device, comprising:
a plurality of pixels arranged in a matrix on a substrate holding an electro-optical material; and
each pixel including a thin film transistor that switches pixels, an irregularity forming film on which a plurality of irregularities including protrusions or holes are dispersed, and a light-reflecting film formed on the irregularity forming film,
the light-reflecting film having on its surface an irregular pattern that scatters light due to the irregularity forming film, and the light-reflecting film being formed in contact holes which are formed in an interlayer insulating film,
contact-hole formation positions being different for each pixel.
7. The active matrix type electro-optical device according to Claim 6, the pixels having different patterns.
8. The active matrix type electro-optical device according to Claim 1, a drain electrode being formed almost over an entire pixel at a lower side of the light-reflecting film in all of the pixels.
9. The active matrix type electro-optical device according to Claim 1, the contact holes formed in each pixel having a same area.
10. The active matrix type electro-optical device according to Claim 1, liquid crystal being held as electro-optical material between the substrate, which is a first substrate, and a second substrate facing the first substrate.
11. An electronic apparatus comprising the active matrix type electro-optical device according to Claim 1 as a display unit.
12. The active matrix type electro-optical device according to Claim 4, the pixels having different patterns at least in the units, and the irregular pattern positions being different for each unit.
13. The active matrix type electro-optical device according to Claim 4, a drain electrode being formed almost over an entire pixel at a lower side of the light-reflecting film in all of the pixels.
14. The active matrix type electro-optical device according to Claim 6, a drain electrode being formed almost over an entire pixel at a lower side of the light-reflecting film in all of the pixels.
15. An electronic apparatus comprising the active matrix type electro-optical device according to Claim 4 as a display unit.

16. An electronic apparatus comprising the active matrix type electro-optical device according to Claim 6 as a display unit.